

REMARKS

The claim amendments are remarks presented herein supplement the December 23, 2003 Response to the Office Action dated September 25, 2003 (Paper No. 24). Claims 1, 2, 4, 7 to 14, 22, 23, 25, 28 to 34, 42, 43, 45, 48 to 54 and 62 to 64 are in the application, of which Claims 1, 22 and 42 are the independent claims. Claims 1, 22, 23, 32, 42, 43, 45, 48, 49, 52 to 54 and 64 are being amended herein. Reconsideration and further examination are respectfully requested.

By the Office Action, Claims 1, 2, 4, 7 to 14, 22, 23, 25, 28 to 34, 42, 43, 45, 48 to 54 and 62 to 64 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,940,065 (Babb) and U.S. Patent No. 6,133,905 (Edo). Reconsideration and withdrawal of the rejection are respectfully requested.

The present invention generally concerns coordinate correction technology in which coordinate correction parameters for nonlinear conversion are calculated. In addition, the present invention addresses the inaccuracies of nonlinear correction of input coordinates in conventional systems.

More particularly, the present invention displays a plurality of reference points on a coordinate input means. Using correction parameters calculated based on user-designated coordinates received from a user designation of the reference points displayed on the coordinate input means, it is possible to correct device characteristics of the coordinate input means such as position aberration.

Among its many features, the present invention includes the features that reference points not yet designated are displayed for designation in an arbitrary order, the reference points indicate positions for user-designated coordinates. It is discriminated

which of the displayed reference points is the one that corresponds to received user-designated coordinates. Each user-designated coordinate is kept, and coordinate correction parameters are calculated, which are also kept. The coordinates are corrected using the kept coordinates correction parameters and a nonlinear conversion. An important feature of the invention is that a display of the reference points is controlled such only those reference points that have not yet been designated are displayed. In other words, the display is controlled so as not to display a discriminated reference point.

Turning to the specific language of the claims, Claim 1 defines a coordinates correction apparatus. A coordinate input means is placed on a display, and a display control means controls display of a plurality of reference points on the display such that all of the reference points yet to be designated are displayed for designation in an arbitrary order, the reference points indicating positions for user-designated coordinates on the coordinate input means. A coordinates reception means receives coordinates designated for the displayed reference points by user via said coordinate input means. A discriminating means discriminates a reference point corresponding to the user-designated coordinate received by said coordinate reception means as a discriminated reference point, from the displayed reference points. A coordinates keeping means keeps the user-designated coordinate as the coordinate corresponding to the reference point discriminated by the discriminating means. A parameter calculation means calculates coordinates correction parameters for nonlinear conversion, based on the coordinates kept by said coordinate keeping means. A parameter keeping means keeps the calculated coordinates correction parameters for nonlinear conversion, and a coordinates correction means corrects the coordinates inputted via said coordinates input means by the nonlinear

conversion using the coordinates correction parameters kept by the parameter keeping means. The display control means controls reference points so as not to display the discriminated reference point discriminated by the discriminating means.

The applied art, namely Babb and Edo, are not seen to teach or to suggest the above-identified features. It is conceded by the Office Action, at pages 3 to 4, that Babb does not disclose displaying reference points indicating positions for user-designated coordinates. Since Babb is not seen to teach displaying reference points, it is also not seen to teach or to suggest controlling display of a plurality of reference points on a display such that reference points yet to be designated are displayed for designation, and controlling the display of reference points so as not to display a discriminated reference point.

Edo is not seen to remedy the deficiencies of Babb.

Edo is seen to describe a technique for advising a user of a direction of selection for use with a selection key which operates in only two directions. (See Edo, Abstract) More particularly, selection key 39 is seen to move in directions Ha and Hb, with options, which are selectable using selection key 39, being displayed in a zigzag orientation so that the user can easily guess the order of selection. (See Edo, Figure 2, col. 3, lines 1 to 6, col. 8, lines 3 to 19) To illustrate with reference to Figure 2, the zigzag orientation is achieved by positioning option Ib below option Ia and above option Ic, so that it can be assumed by the user that option Ib falls after option Ia but before Ic in the order of selection when using selection key 39, even though option Ib is in a different columnar position than either options Ia or Ic.

In the January 29, 2004 Advisory Action, it is stated that control unit (36) of Edo causes a candidate processing option to be displayed in one mode when it is selected

and in another when it is not selected. The Advisory Action continues and states that:

“[i]t would have been obvious that the control unit (36) ...
satisfies the desired display control with respect to reference
points ‘yet to be designated’.”

In response, reference is respectfully made to col. 8, lines 50 to 64 of Edo,
wherein a candidate processing option is seen to be described as the currently-selected one
of the displayed options. As stated in the referenced portion of Edo:

“[the one option currently selected] is a candidate option
corresponding to the processing operation or data designated
by the user for selection and execution by the controller 24,
and is hereinafter referred to as ‘a processing candidate
option’.”

Referring to the description provided in Edo commencing at col. 8, line 65,
the processing candidate option is among the group of options that are displayed by display
unit 31. While Edo describes displaying an option in one mode when it is selected and
displaying the option in another mode when it is not selected, Edo is still seen to describe
displaying the options in the option group. In other words, Edo is seen to describe
displaying all of the options in an option group regardless of which one of the options has
been selected as the processing candidate option. Edo is not seen to disclose or to suggest
controlling a display such that all of the reference points yet to be designated are displayed,
and controlling the display of reference points so as not to display a discriminated reference
point.

Therefore, for at least the foregoing reasons, Claim 1 is believed to be in

condition for allowance. Further, Applicants submit that Claims 22 and 42 are believed to be in condition for allowance for at least the same reasons.

The remaining claims are each dependent from the independent claims discussed above and are therefore believed patentable for the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

In view of the foregoing, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office by telephone at (714) 540-8700. All correspondence should be directed to our address given below.

Respectfully submitted,



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